Contents of Volume 214, 1981

No. 1 issued on January 7, 1981

L. Larsson: Control of the Pars Intermedia of the Lizard, *Anolis carolinensis*. V. Extravascular Transfer and Cellular Uptake of Horseradish Peroxidase in the Neuro-Intermediate Lobe 1

M. Olivereau, J.-M. Olivereau, C. Aimar: Specific Effect of Calcium Ions on the Calcium-sensitive Cells of the Pars Intermedia in the Goldfish 23

A. Hervonen, V.M. Pickel, T.H. Joh, D.J. Reis, I. Linnoila, R.J. Miller: Immunohistochemical Localization of the Catecholamine-syntehsizing Enzymes, Substance P and Enkephalin in the Human Fetal Sympathetic Ganglion 33

H.O. Liebich: The Ultrastructure of the Heart of *Oniscus asellus* L. and *Asellus aquaticus* L. (Crustacea, Isopoda) 43

T.H. Ermak, S.S. Rothman: Zymogen Granules of Pancreas Decrease in Size in Response to Feeding 51

F.S. Chia, R. Koss, L.R. Bickell: Fine Structural Study of the Statocysts in the Veliger Larva of the Nudibranch, *Rostanga pulchra* 67

F. Koyanagi, H. Nishiyama: Disintegration of Spermatozoa in the Infundibular Sperm-Host Glands of the Fowl 81

F. Koyanagi, H. Nishiyama: Fate of Spermatozoa That Do Not Participate in Fertilization in the Domestic Fowl 89

R. Calvert, D. Malka, D. Ménard: Establishment of Regional Differences in Brush Border Enzymatic Activities During the Development of Fetal Mouse Small Intestine 97

S.J. Coles, L. Reid: Inhibition of Glycoconjugate Secretion by Colchicine and Cytochalasin B. An in vitro Study of Human Airway 107

J.M. Rolland, R.L. Betts, G.M. Halliday, G.R. Hocking, R.C. Nairn: Early Changes in Concanavalin A-stimulated Lymphocytes Detected by the Fluorescent Probe N-phenyl-1-naphthylamine 119

G.E. Wise, E. Miller, C.M. Castello: High-Voltage Electron Microscopy of Normal and Irreversibly Sickled Red Blood Cells 129

M.R. Shafer, R.L. Calabrese: Similarities and Differences in the Structure of Segmentally Homologous Neurons that Control the Hearts in the Leech, *Hirudo medicinalis* 137

K. Spanel-Borowski: Morphological Investigations on Follicular Atresia in Canine Ovaries 155

M.N. Bou-Resli: Ultrastructural Studies on the Nucleoli of the Follicle Cells in the Lizards *Acanthodactylus scutellatus hardyi* and *Eremias brevirostris* 169

R.C. Burghardt, E. Anderson: Hormonal Modulation of Gap Junctions in Rat Ovarian Follicles 181

R. Jalouzot, B. Toublan: Multiple Effects of 5 mM Sodium Butyrate on *Physarum polycephalum* Macroplasmodia 195

I.M. Keith, L.A. Wiley, J.A. Will: Pulmonary Neuroendocrine Cells: Decreased Serotonin Fluorescence and Stable Argyrophil-Cell Numbers in Acute Hypoxia 201

N.D. Holland, J.C. Grimmer: Fine Structure of the Cirri and a Possible Mechanism for Their Motility in Stalkless Crinoids (Echinodermata) 207

J.K. Kimani: Structural Evidence for Insertion of Collagen Fibres to Smooth Muscle Cells in the Carotid Arterial System of the Giraffe *(Giraffa camelopardalis)* 219

No. 2 issued on January 16, 1981

G. Malmfors, S. Leander, E. Brodin, R. Håkanson, T. Holmin, F. Sundler: Peptide-containing Neurons Intrinsic to the Gut Wall. An Experimental Study in the Pig 225

L. Enerbäck, G. Löwhagen, O. Löwhagen, U. Wingren: The Effect of Polymyxin B and Some Mast-Cell Constituents on Mucosal Mast Cells in the Duodenum of the Rat 239

C.D. Notenboom, J.C. Garaud, J. Doerr-Schott, M. Terlou: Localization by Immunofluorescence of a Gastrin-like Substance in the Brain of the Rainbow Trout, *Salmo gairdneri* 247

J.N. Riley, J.P. Card, R.Y. Moore: A Retinal Projection to the Lateral Hypothalamus in the Rat 257

S. Wakai, N. Hirokawa: Development of Blood-Cerebrospinal Fluid Barrier to Horseradish Peroxidase in the Avian Choroidal Epithelium 271

H.L. Vahlsing, R.B. Hirschl, E.R. Feringa: Axoplasmic Flow of Tritiated Proline in the Corticospinal Tract of the Rat 279

E. Patricolo, G. Ortolani, A. Cascio: The Effect of L-Thyroxine on the Metamorphosis of *Ascidia malaca* 289

J.R. Wolff, S. Eins, M. Holzgraefe, L. Záborszky: The Temporo-Spatial Course of Degeneration After Cutting Cortico-Cortical Connections in Adult Rats 303

G. Alonso, J. Gabrion, E. Travers, I. Assenmacher: Ultrastructural Organization of Actin Filaments in Neurosecretory Axons of the Rat 323

P. Stanka, P. Rathjen, B. Sahlmann: Evidence of Membrane Transformation During Melanogenesis. Electron Microscopic Study on the Retinal Pigment Epithelium of Chick Embryos 343

C. Cabana, J.S. Hugon, F. Lamy: Freeze-Fracture and Deep-Etching Studies on Zymogen-Granule Membranes of the Rat Pancreas 355

I.A. Johnston: Quantitative Analysis of Muscle Breakdown During Starvation in the Marine Flatfish *Pleuronectes platessa* 369

J.N. Fryer: Hypothalamic Lesions Stimulating Growth Hormone Cell Activity in the Goldfish 387

M.A. Klyne, M.A. Ali: Microtubules and 10 nm-Filaments in the Retinal Pigment Epithelium During the Diurnal Light-Dark-Cycle 397

T.G. Christensen, G.C. Blanchard, G. Nolley, J.A. Hayes: Ultrastructural Localization of Endogenous Peroxidase in the Lower Respiratory Tract of the Guinea Pig 407

M. Benjamin: The Origin of Pituitary Cysts in the Rostral Pars Distalis of the Nine-Spined Stickleback, *Pungitius pungitius* L. 417

G. Goffinet, M.P. Houben-Defresne, L.J. Simar, J. Boniver: Thymic Microenvironment and Cultures Derived from Mouse Thymic Explants. A Morphological Study 431

U. Mothes, K.A. Seitz: A Possible Pathway of Chitin Synthesis as Revealed by Electron Microscopy in *Tetranychus urticae* (Acari, Tetranychidae) 443

No. 3 issued on February 11, 1981

H. Stein, I.A. Bab, J. Sela: The Occurrence of Hydroxyapatite Crystals in Extracellular Matrix Vesicles after Surgical Manipulation of the Rabbit Knee Joint 449

J. Metuzals, V. Montpetit, D.F. Clapin: Organization of the Neurofilamentous Network 455

S. Yamashina, K. Kawai: Localization of 5'-Nucleotidase Activity in the Parotid Acinar Cells of a Rat Treated with Isoproterenol 483

L.N. Minier, R.S. Lasher, P.F. Erickson: Distribution of the LETS Protein (Fibronectin) in Rat Cerebellum. An in vitro and in vivo Developmental Study 491

G. Myagkaya, J.P.M. Schellens: Final Stages of Erythrophagocytosis in the Sheep Placenta 501

Y. Uchiyama: Circadian Alterations in Tubular Structures on the Outer Mitochondrial Membrane of Rat Hepatocytes 519

D. Cocchia: Immunocytochemical Localization of S-100 Protein in the Brain of Adult Rat. An Ultrastructural Study 529

C. Chi, S.D. Carlson: Lanthanum and Freeze Fracture Studies on the Retinular Cell Junction in the Compound Eye of the Housefly 541

M.K. Abbas, G.D. Cain: Surface Receptors: Are They Involved in Transformation of Spermatozoa of *Ascaris*? 553

L.J. Ream, R. Principato: Ultrastructure Observations on the Mechanism of Secretion in the Rat Parathyroid after Fluoride Ingestion 569

J.C. van de Kamer, M.A. Zandbergen: The Hypothalamic-Hypophyseal System and Its Evolutionary Aspects in *Scyliorhinus caniculus* 575

A.R. Severson: ^{3}H-Fucose Incorporation into Bone Following Exposure to Parathyroid Hormone, Dibutyryl Cyclic-AMP and Colchicine 583

C.A. Ingham, F.-H. Güldner: Identification and Morphometric Evaluation of the Synapses of Optic Nerve Afferents in the Optic Tectum of the Axolotl (*Ambystoma mexicanum*) 593

V. Groh, H. von Mayersbach †: Enzymatic and Functional Heterogeneity of Lysosomes 613

A. Przefecka: Seasonal Changes in Ultrastructure of Brown Adipose Tissue in the Common Shrew (*Sorex araneus* L.) 623

M. Bortolussi, G. Marini, M.T. Rolandi, L. Colombo: In vitro Binding of ^{125}I-HCG to the Rat Ovary from Birth to Puberty 633

B. Jung, M.-E. Moritz, J.-P. Berchtold: Fine Structure and Function of Interrenal (Adrenocortical) Cells of Dexamethasone-treated Trout (*Salmo fario* L.) 641

A.H.D. Watson: The Ultrastructure of the Innervation of the Intestinal Wall in the Teleosts *Myoxocephalus scorpius* and *Pleuronectes platessa* 651

Short Communications

D.L. Meyer, U. v. Seydlitz-Kurzbach, E. Fiebig: Bilaterally Asymmetrical Uptake of [^{14}C]2-Deoxyglucose by the Octavo-Lateralis Complexes in Flatfish 659

G. Kümmel: Fine Structural Indications of an Osmoregulatory Function of the "Gills" in Terrestrial Isopods (Crustacea, Oniscoidea) 663

Indexed in Current Contents

Author-Index of Volume 214, 1981

Abbas, M.K. 553
Aimar, C. 23
Ali, M.A. 397
Alonso, G. 323
Anderson, E. 181
Assenmacher, I. 323

Bab, I.A. 449
Benjamin, M. 417
Berchtold, J.-P. 641
Betts, R.L. 119
Bickell, L.R. 67
Blanchard, G.C. 407
Boniver, J. 431
Bortolussi, M. 633
Bou-Resli, M.N. 169
Brodin, E. 225
Burghardt, R.C. 181

Cabana, C. 355
Cain, G.D. 553
Calabrese, R.L. 137
Calvert, R. 97
Card, J.P. 257
Carlson, S.D. 541
Cascio, A. 289
Castello, C.M. 129
Chi, C. 541
Chia, F.S. 67
Christensen, T.G. 407
Clapin, D.F. 455
Cocchia, D. 529
Coles, S.J. 107
Colombo, L. 633

Doerr-Schott, J. 247

Eins, S. 303
Enerbäck, L. 239
Erickson, P.F. 491
Ermak, T.H. 51

Feringa, E.R. 279
Fiebig, E. 659
Fryer, J.N. 387

Gabrion, J. 323
Garaud, J.C. 247
Goffinet, G. 431
Grimmer, J.C. 207
Groh, V. 613
Güldner, F.-H. 593

Håkanson, R. 225
Halliday, G.M. 119
Hayes, J.A. 407
Hervonen, A. 33
Hirokawa, N. 271
Hirschl, R.B. 279
Hocking, G.R. 119
Holland, N.D. 207
Holmin, T. 225
Holzgraefe, M. 303
Houben-Defresne, M.P. 431
Hugon, J.S. 355

Ingham, C.A. 593

Jalouzot, R. 195
Joh, T.H. 33
Johnston, I.A. 369
Jung, B. 641

Kamer, J.C. van de 575
Kawai, K. 483
Keith, I.M. 201
Kimani, J.K. 219
Klyne, M.A. 397
Koss, R. 67
Koyanagi, F. 81, 89
Kümmel, G. 663

Lamy, F. 355
Larsson, L. 1
Lasher, R.S. 491
Leander, S. 225
Liebich, H.O. 43
Linnoila, I. 33
Löwhagen, G. 239
Löwhagen, O. 239

Malka, D. 97
Malmfors, G. 225
Marini, G. 633
Mayersbach †, H. von 613
Ménard, D. 97
Metuzals, J. 455
Meyer, D.L. 659
Miller, E. 129
Miller, R.J. 33
Minier, L.N. 491
Montpetit, V. 455
Moore, R.Y. 257
Moritz, M.-E. 641
Mothes, U. 443
Myagkaya, G. 501

Nairn, R.C. 119
Nishiyama, H. 81, 89
Nolley, G. 407
Notenboom, C.D. 247

Olivereau, J.-M. 23
Olivereau, M. 23
Ortolani, G. 289

Patricolo, E. 289
Pickel, V.M. 33
Principato, R. 569
Przełecka, A. 623

Rathjen, P. 343
Ream, L.J. 569
Reid, L. 107
Reis, D.J. 33
Riley, J.N. 257
Rolandi, M.T. 633
Rolland, J.M. 119
Rothman, S.S. 51

Sahlmann, B. 343
Seitz, K.A. 443
Schellens, J.P.M. 501
Sela, J. 449
Severson, A.R. 583
Seydlitz-Kurzbach, U. v. 659
Shafer, M.R. 137
Simar, L.J. 431
Spanel-Borowski, K. 155
Stanka, P. 343
Stein, H. 449
Sundler, F. 225

Terlou, M. 247
Toublan, B. 195
Travers, E. 323

Uchiyama, Y. 519

Vahlsing, H.L. 279

Wakai, S. 271
Watson, A.H.D. 651
Wiley, L.A. 201
Will, J.A. 201
Wingren, U. 239
Wise, G.E. 129
Wolff, J.R. 303

Yamashina, S. 483

Záborszky, L. 303
Zandbergen, M.A. 575